

Application No.: 09/605,979
Amendment dated: November 21, 2003
Reply to Office Action of May 21, 2003

REMARKS

Applicants thank the Examiner for entering the amendments to claims 35-42, even though the amendments did not comply with 37 C.F.R. 1.173(b). In the future, Applicants will ensure that amendments to the application comply with 37 C.F.R. 1.173(b).

Regarding the Examiner's rejections based upon 35 U.S.C. § 112, Applicants have amended claims 36, 40 and 42 to conform with the Examiner's suggested amendments. Particularly, claim 36 has been amended to remove the language "cent," from the claim. Claim 40 has been amended by replacing the term "a polymeric layer," with the term "a polymeric film." Claim 42 has been amended to insert the language "by," before the term "weight." By making all the Examiner's suggested amendments to claims 36, 40, and 42, Applicants now believe that the Examiner's rejections based upon 35 U.S.C. § 112 have been overcome and therefore request that the rejection be withdrawn.

Regarding the Examiner's rejections directed to claims 23, 25, 32 and 34 based upon 35 U.S.C. § 102 (b), Applicants disagree with the Examiner and argue that all the claimed elements are not taught by Moore et al. (U.S. Patent No. 4,338,234). Claim 25 is dependent upon claim 23, and Applicants specifically argue with respect to these claims that at least the following claim element of "having cut and puncture resistance throughout," is not taught by Moore et al. Under 35 U.S.C. § 102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art¹. Further, claim 34 is dependent upon claim 32, and similar to the above claims, at least the claim limitation of "having cut and puncture resistance throughout," is not taught by Moore et al. Therefore, because all the claimed elements are not taught by Moore et al., Applicant respectfully requests the Examiner to reconsider the rejection and withdraw it.

Claims 16, 18, 23, 25, 32 and 34 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Becker, et al. (U.S. Patent No. 5,616,650). As with the above rejected claims, these claims also contain the limitation of "having cut and puncture resistance throughout." Becker does not disclose this claimed limitation. Becker does, however, disclose that its hybrid polymers or ceramers can be tailored to include, for example, temperature resistance, flame resistance, and electrical insulation properties². More specifically, Becker discloses that "furthermore, temperature resistant, flame resistant hybrid polymers or ceramers may be used as, for example, protective fabric

¹ Akzo N.V. v U.S. International Trade Commission, 1 USPQ 2nd 1241, 1245 (Fed. Cir. 1986).

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or clothing (e.g., gloves, jackets, layings, aprons, head gear, etc.)³. Still further, Becker discloses that "when the properties of the hybrid polymers or ceramers of the present invention are formed as film or sheets, which may be biaxially oriented, uses may include, for example, photographic film, x-ray film, magnetic tapes, electrical insulation, drafting sheets, food packaging bags (e.g., boil-in-bags, retort pouches, etc.), etc."⁴

The examiner has cited Column 35, line 21 for the proposition that Becker discloses that the polymer may be used to make a glove. But when Becker is read as a whole, i.e., in light of its context, what is being taught is that "furthermore, temperature-resistant, flame-resistant hybrid polymers or ceramers may be used as, for example, protective fabric or clothing (e.g., gloves, . . . etc.)"⁵. In other words, Becker only teaches that gloves can be prepared from polymers that are temperature resistant and flame resistant hybrid polymers or ceramers. Becker does not, however, teach gloves being prepared from a polymeric film that is both cut and puncture resistant.

Further, Becker teaches that "when the properties of the hybrid polymers or ceramers of the present invention are formed as films or sheets, which may be biaxially oriented, uses may include, for example, photographic film, x-ray film, magnetic tapes, electrical insulation, drafting sheets, food packaging bags (e.g., boil-in-bags, retort pouches, etc.), etc. Note that Becker does not teach using its films to create gloves.

Applicant therefore respectfully requests that the examiner reconsider and withdraw the current rejection because the "cut and puncture resistant" elements of claims 16, 18, 23, 25, 32 and 34 are not taught by Becker at al.

The Examiner has rejected claims 1-42 on the basis of 35 U.S.C. § 103(a) as being unpatentable over Darras et al. (WO 92/20244) in view of Riffe et al. (U.S. Patent No. 6,020,063). Among the Examiner's findings is that Darras does not disclose the use of chopped fibers within the polymer matrix, however chopped fibers are known to be used to reinforce polymeric matrices, as taught by Riffe et al. The Examiner has now rejected claims 1-42 on the basis that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to use chopped fibers in place of whiskers or particles of Darras to reinforce the polymeric matrix since Riffe teaches that the use of chopped carbon fibers to reinforce polymeric matrices is known in the art, and

2 U.S. Patent No. 5,616,650, Column 35, lines 13-16

3 U.S. Patent No. 5,616,650, Column 35, lines 18-22

4 U.S. Patent No. 5,616,650, Column 35, lines 40-45

5 U.S. Patent No. 5,616,650, Column 35, lines 18-21

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it has been held to be within general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. The Applicant now disagrees with the basis of this rejection because, although chopped fibers may be known to reinforce polymeric matrices, it is not, however, known to use chopped fibers in films in order to create cut and puncture resistance throughout the film. Therefore, because the prior art does not teach using chopped fibers to create cut and puncture resistance throughout a film, it would not be within the general skill of a worker in the art to select chopped fibers because their suitability for the intended use of cut and puncture resistance is unknown.

The Examiner has also provided a basis for making a 35 U.S.C. § 103(a) rejection by finding that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the chopped fibers of Riffle in place of the whiskers or particles of Darras to reinforce the polymeric matrix in order to produce a reinforced polymeric matrix which has a greater product durability and better performance due the increased fiber and resin compatibility as taught by Riffle. The Applicant also disagrees with this basis for rejection because, although the chopped fibers of Riffle may be known to reinforce polymer matrices, those fibers are not known to create cut and puncture resistance within a film. Therefore, there would be no motivation for using the chopped fibers taught by Riffle to create a polymeric film having cut and puncture resistance.

The Examiner has specifically rejected claims 2-4, 18, 25-26, and 34 on a 103 basis because the Examiner has found that it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the fiber materials recited in claims 2-4, 18, 25-26, and 34 as the chopped fiber in the polymeric layer of Darras modified in view of Riffle et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of the suitability for the intended use as a matter of obvious design choice. As stated above, Riffle does not teach that using chopped fibers creates a polymeric film having physical properties of cut and puncture resistance. Therefore, there is no basis for the suitability of using chopped fibers to create cut and puncture resistance. Because the suitability of chopped fibers for creating cut and puncture resistance in polymeric films isn't known, the Applicants respectfully request that the Examiner reconsider the rejection and withdraw it.

The Examiner has also found that Darras discloses a variety of materials that can be used for the polymeric layers, including latex, which meets claims 5-6, 17, 24, and 33. Further, the Examiner has also found that it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to use the polymeric mixtures recited in claims 7 and 9 as the polymeric matrix of Darras modified in view of Riffle, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Again, the Applicants disagree with this rejection and its basis because Riffle's chopped fibers are not taught to provide polymeric films having cut and puncture resistance. Instead, Riffle's fibers are taught to provide fiber reinforcement.⁶ Therefore, there is nothing obvious about using Riffle's chopped to create polymeric films having cut and puncture resistance. Applicants therefore request that this rejection be withdrawn.

With respect to claims 8, 10, 27, 36, 38, 40, and 42, the Examiner has found that Darras does not disclose the claimed weight percent of the reinforcing fiber that is added to the polymer. Further, the Examiner has also found with respect to claims 35, 37, 39, and 41, that Darras does not disclose the weight percent of the polymer in the middle layer. The Examiner has now presented the argument that one having routine skill in the art would recognize the percent fiber of corresponding percent polymer should be chosen according to the desired level of desire by reinforcement, strength, and other desired properties of the composite. Also argued is that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed weight percentages of polymer fibers in the composite of Darras modified in view of Riffle, since it has been held that while the general conditions of the claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Importantly, the Examiner goes on to state that Darras and Riffle do not disclose the value of the increase in cut resistance which is provided by the fibers or other reinforcing material. Therefore, the general conditions of the claims relating to cut and puncture resistance cannot be known since they are not disclosed in the prior art and therefore discovering the optimum or workable ranges cannot be achieved using routine skill in the art.⁷ In other words, since the Examiner has a knowledge that neither Darras nor Riffle disclosed the value of the increase in cut resistance which is provided by the fibers or the reinforcing material, it should be clear that neither Darras nor Riffle teach using chopped fibers to create films having cut or puncture resistance. There is therefore no motivation for combining the two references in any attempt to create a polymeric film having cut or puncture resistance. Applicants therefore request that this basis for rejection be reconsidered by the Examiner and that the rejection be withdrawn.

⁶ U.S. Patent No. 6,020,063, column 4, line 10.

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The remaining rejections based upon Darras in view of Riffle relate to glove thickness, and the length of reinforcing material. The Examiner has already acknowledged that neither Darras nor Riffle disclose the value of the increase in cut resistance that is provided by the fibers or other reinforcing material, and this is because neither Darras nor Riffle teach chopped fibers being used to produce a film having cut or puncture resistance. In light of that fact, there is no motivation to combine the two references to arrive at a polymeric film having cut or puncture resistance. Further, because there is no motivation to combine the two references to arrive at a polymeric film having cut or puncture resistance, the teachings of Darras cannot be combined with the teachings with Riffle to arrive at the claimed invention. Therefore, the two references should not be combined in an effort to teach either the length of the reinforced material or the thickness of the glove or film. As a result, Applicants request that the Examiner reconsider this rejection and withdraw it.

With regard to the rejection of claims 1-42 under 35 U.S.C. §103(a) as being unpatentable over PCT Patent Publication No. WO 92/20244 to Darras et al. in view of U.S. Patent No. 5,616,650 to Becker et al., applicants respectfully submit that the combination of references fails to teach ever feature of the present invention. Specifically, claim 1 is directed to a medical glove including the limitation of "at least three dipped formed elastomeric layers combined to form the entire glove . . ."

Becker et al. is silent on the formation of gloves or other objects formed of the polymer compositions disclosed therein, and accordingly, is silent on forming a medical glove formed from three dipped formed layers. Darras et al., on the other hand, does suggest a glove formed of three layers, however, only one of said layers is dipped formed, as required by claim 1. According to Darras et al., "the glove 10 preferably includes two layers of a polymeric matrix 14 and 16, having sandwiched therebetween a polymeric matrix layer 18 with randomly oriented whiskers 20. Optimally, the two outer polymeric layers 14 and 16 have different weaves, as shown." Page 6, Lines 10-15. Darras et al. continues to explain that the "polymeric layer is a stretchable interwoven material which can be made from a synthetic fiber." Page 6, Lines 16-17. From this disclosure, as well as the exemplary fibers listed in Darras et al. that can be used for the outer layers, it is clear that the outer layers 14 and 16 of the Darras et al. glove are woven materials that can not be dipped formed as claimed in claim 1.

7 In re Aller, 105 USPQ 233.

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Further with regard to the rejection of claim 1 as being unpatentable over Darras et al. in view of Becker et al., applicants respectfully submit that the references lack sufficient motivation therein to justify their combination. Becker et al. suggests selecting a chopped fiber for inclusion in a polymer matrix depending on a desired quality of the finished product. Nothing in Becker et al. suggests including chopped fibers in an elastomeric layer to be formed into a glove. Accordingly, applicants respectfully submit that claim 1, and the claims depending therefrom are patentable over Darras et al. in view of Becker et al.

Regarding the rejection of claims 16-42, applicants respectfully submit that the combination of Darras et al. in view of Becker et al. fail to teach every feature of the present invention as recited in those claims, two of which have been amended. These claims are allowable for reasons analogous to those discussed above regarding the rejection of claim 1.

Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,



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